REMARKS/ARGUMENTS

Claims 1-36 are pending in the present application. Claims 12, 24 and 36 are withdrawn from consideration with the understanding that, upon the indication of allowability of the linking claims 1-3, 9-11, 13-15, 21-23, 25-27, 33-35, the restriction requirement as to the linked inventions shall be withdrawn and any claim(s) depending from or otherwise requiring all the limitations of the allowable linking claim(s) will be rejoined and fully examined for patentability in accordance with 37 CFR 1.104.

This Amendment is in response to the Office Action mailed on February 23, 2007. In the Office Action, the Examiner rejected claims 1-11, 13-23, and 25-35 under 35 U.S.C. §101; and claims 1-11, 13-23, and 25-35 under 35 U.S.C. §102(b). Reconsideration in light of the remarks made herein is respectfully requested.

Rejection Under 35 U.S.C. § 101

In the Office Action, the Examiner stated that claims 1-11, 13-23, and 25-35 are rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. The Examiner contends that "[the] claims merely describe steps performed by a computer and produce no tangible result" and that "specifically, the claims describe monitoring a resource, but do not display or store the results of the monitoring process."(Office Action, page 2). The Examiner further contends that "claims 13-23 recite machine accessible medium that includes data for monitoring a resource, but the monitoring process produces no tangible result". The Examiner further contends that "claims 25-35 recite memory with program code for monitoring a resource, but the monitoring process produces no tangible result". Applicant respectfully disagrees for the following reasons.

Applicant submits that Claims 1-11, 13-23, and 25-35 are statutory under 35 USC §101 according to the criteria set forth in the Interim Guidelines for Examination of Patent Applications for Subject Matter Eligibility, 1300 OG 142 (November 22, 2005) ("Guidelines"). The subject matter of the claims is not merely descriptive material.

The Guidelines states: To satisfy section 101 requirements, the claim must be for a practical application of the § 101 judicial exception, which can be identified in various ways: (1)

The claimed invention "transforms" an article or physical object to a different state or thing; (2) The claimed invention otherwise produces a useful, concrete and tangible result, based on the factors discussed below. Applicant submits that the claimed invention transforms an article or physical object to a different state or thing, or alternatively, produces a useful, concrete, and tangible result.

a) Physical transformation:

Claim 1 recites a method for dynamically monitoring resources, the method comprising the operations of: (a) sending to a monitor request module a request of a user to monitor at least one specified resource; and (b) creating at least one monitor to monitor the specified resource, using the monitor request module.

All of the elements in the claim (e.g., a monitor request module, a request to monitor, at least one specified resource, at least one monitor) represent physical entities, articles, or objects. They are not abstract ideas like democracy, freedom, or capitalism.

In addition, all operations are transformations on the elements. Sending to a monitor request module a request of a user to monitor at least one specified resource transforms the request to monitor into being sent to the monitor request module. Creating at least one monitor transforms a monitor into being created and the specified resource into being monitored.

Since both operations (sending to a monitor request module a request of a user to monitor, and creating at least one monitor to monitor the specified resource) represent physical transformations of physical entities (a request to monitor, at least one specified resource, at least one monitor) or reduction of the at least one specified resource to a different state or thing (the state of being monitored), the claimed invention satisfies the physical transformation requirement. Thus, the claimed invention is statutory.

b) Useful, concrete, and tangible result:

In determining whether the claim is for a "practical application," the focus is not on whether the steps taken to achieve a particular result are useful, tangible and concrete, but rather that the final result achieved by the claimed invention is "useful, tangible and concrete."

(Guidelines, page 20). Here, the final result of the claimed invention is the creation of at least one monitor to monitor the specified resource. The creation of at least one monitor is useful, tangible, and concrete.

Useful: For an invention to be "useful" it must satisfy the utility requirement of section 101. The USPTO's official interpretation of the utility requirement provides that the utility of an invention has to be (i) specific, (ii) substantial and (iii) credible. MPEP § 2107 and *In re Fisher*, 421 F.3d, 76 USPQ2d at 1230. Here, the utility of the claimed invention is specific, substantial, and credible. It is specific because it aims at a specific task of creating at least one monitor to monitor the specified resource. It is substantial because it addresses a significant problem faced by system administrators of computer systems: the monitoring of system resources. It is credible because it provides a novel technique using methods that may be verified or confirmed by persons skilled in the art, such as sending a request of a user to monitor at least one specified resource; and creating at least one monitor to monitor the specified resource.

Tangible: The tangible requirement does require that the claim must recite more than a § 101 judicial exception, in that the process claim must set forth a practical application of that § 101 judicial exception to produce a real-world result. In other words, the opposite meaning of "tangible" is "abstract." Here, the claimed invention produces a real-world result because the creation of at least one monitor allows the at least one specified resource to be monitored to detect changes in system state (system state is defined as a run-time state of system resources at a particular instant in time. Specification, page 2, lines 19-20). It does not represent an abstract idea such as democracy, freedom, or capitalism.

Concrete: The "concrete" requirement means that the process must have a result that can be substantially repeatable or the process must substantially produce the same result again. The opposite of "concrete" is unrepeatable or unpredictable. Here, the claimed invention is substantially repeatable and predictable. As long as there are specified resources in a computer system, monitors can be created to monitor the specified resources. The claimed invention would produce the same result again.

The Examiner apparently misconstrued the intention of the useful, concrete, and tangible requirement. The Examiner interpreted this requirement as an end result to be tangibly displayed

or stored. This is not so. Instead, the requirement means that the claimed invention as a whole must be useful and accomplish a practical application. That is, it must produce a "useful, concrete and tangible result." *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966)); *In re Fisher*, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); *In re Ziegler*, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)). (Guidelines, section II A, "Identify and Understand any Utility and/or Practical Application Asserted for the Invention"). It is clear from the above analysis that the claimed invention possesses a certain level of real-world value in dynamically monitoring computer system state application, as opposed to an idea or a concept, or a starting point for future investigation or research.

The above arguments are applicable to independent claims 13 and 25.

Accordingly, Applicant submits that claims 1-11, 13-23, and 25-35 are statutory under 35 U.S.C. §101 and respectfully requests the rejection be withdrawn.

Rejection Under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-11, 13-23, and 25-35 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,506,955 issued to Chen et al. ("Chen"). Applicant respectfully traverses the rejection and submits that the Examiner has not met the burden of establishing a *prima facie* case of anticipation.

1. Claims 1-11, 13-23, and 25-35:

Chen discloses a performance tool, its related application programming interfaces and the daemon for interactive selection of performance statistics across a network of computer systems, the control of the flow of performance data, and the monitoring of the remote hosts(s) performance in live graphs (Chen, col. 2, line 63 through col. 3, line 2). The performance tool consists of five subsystems and two interfaces: a recording subsystem 20, a configuration subsystem 30, a data display subsystem 40, playback subsystem 50, a GUI 80, and a network

send/receive interface 70 (Chen, col. 6, lines 33-35; Fig. 1). The performance tool allows a user to interactively select the relevant data to monitor while also permits a predetermined set of monitoring "devices" to be maintained (Chen, col. 4, lines 51-56). The basic monitoring device is called a monitor (note that the terms "monitor" and "console" are used interchangeably in Chen). It shows as a window on the display and can be activated or deactivated from popup or pulldown menus. Multiple monitors can be active at a time. Within a monitor, one or more sets of data processing system statistics may be observed in subwindows called instruments. An instrument can monitor a set of statistics supplied from any host on the network that runs the Data Supplier daemon (Chen, col. 4, lines 59-66). The network send/receive interface 70 uses API 160 broadcast function to identify the Data Supplier daemons 210 available in the network 200 (Chen, col. 12, lines 18-20; Fig. 8). For each instrument that is activated by the user, the API 160 is used to negotiate with the Data Supplier daemon what data values belong to the set (Chen, col. 12, lines 18-20; Fig. 8). The data display subsystem 40 (Fig.4), as instructed by the user through the GUI 80, will pass requests to start, stop, and frequency changes for data feed packets through the configuration subsystem 30 to the network send/receive interface 70 using the API request/response interface 160 (Chen, col. 12, lines 50-55; Fig. 4).

The monitors and monitoring instruments in Chen are merely windows and subwindows to display the data received from the Data Supplier daemon(s). In contrast, when created by the monitor request module upon a user's request to monitor specified resources, Applicant's monitor creates a collection of monitored objects, each of the monitored objects representing a snapshot of the corresponding specified resource taken at that point in time; monitors the specified resources and maintains the collection of monitored objects (Specification, page 12, lines 22-33; Fig. 2; Fig. 3). To further clarify this aspect of the invention, claims 1, 13, and 25 have been amended.

Chen does not disclose, either expressly or inherently, at least one of: (a) sending to a monitor request module a request of a user to monitor at least one specified resource; and (b) creating at least one monitor to monitor the at least one specified resource, using the monitor request module, and creating at least one monitored object corresponding to the at least one

specified resource, the at least one monitored object representing a state of the at least one specified resource and being maintained by the at least one monitor.

The Examiner contends that <u>Chen</u> discloses (a) sending to a monitor request module a request of a user to monitor at least one specified resource, citing col. 6, line 45, and "start". The cited excerpt indicates otherwise. For ease of reference, the entire paragraph containing the cited line 45 (the first line of the paragraph) is reproduced here:

> "The GUI 80 allows the user to start and stop recording from any active monitoring console and any active monitoring instrument. When recording begins in the recording subsystem 20, the configuration of the entire monitoring console is written to a recording file (100 of Fig. 2). The recording file 100 itself is named from the name of the monitoring console from which it is being recorded." (<u>Chen</u>, col. 6, lines 45-51).

As seen from the above excerpt, <u>Chen</u> merely discloses that the GUI 80 allows the user to start and stop recording from any active monitoring console and any active monitoring instrument. As discussed above, a monitoring console and a monitoring instrument are just a window and a subwindow, respectively. A request to start (and stop) recording the data being displayed on an active monitoring console and monitoring instrument into a recording file only affect the recording file, and does not affect the data being displayed, the active monitoring console and monitoring instrument. A request to start and stop recording is not the same as a request to monitor a specified resource sent to a monitor request module which, in response, creates a monitor to monitor the specified resource.

The Examiner contends that <u>Chen</u> discloses (b) creating at least one monitor to monitor the at least one specified resource, using the monitor request module, citing <u>Chen</u>, col. 6, line 47. Applicant respectfully disagrees. The cited line 47 is the second sentence in the above excerpt. This cited line merely discloses that, when recording begins in the recording subsystem 20, the configuration of the entire monitoring console is written to a recording file (100 of Fig. 2) (<u>Chen</u>, col. 6, line 47). In this cited line, there is no disclosure of any monitor being created by the monitor request module to monitor the at least one specified resource. Writing the configuration of the entire monitoring console into a recording file is not the same as creating a monitor to monitor the specified resource. The recording file contains five types of records: console

information, instrument information, value display information, value detail information, data value records (Chen, col. 14, lines 37-44). Console information is simply information about the physical layout of the console measured in pixels, the number of instruments (i.e., subwindows) within the console, and the major and minor protocol versions which are used to identify different protocol versions across releases (Chen, col. 14, lines 45-52). The recording file is not the same as Applicant's monitor. The recording file 100 is merely a file used by the playback subsystem 50 to playback the recordings and pass the configuration data to the data display subsystem 40 (Chen, col.7, lines 46-51). In contrast, in Applicant's invention, when created by the monitor request module upon a user's request to monitor specified resources, the monitor creates a collection of monitored objects, each of the monitored objects representing a snapshot of the corresponding specified resource taken at that point in time; monitors the specified resources and maintains the collection of monitored objects (Specification, page 12, lines 22-33; Fig. 2; Fig. 3).

Claim 2 depends from Claim 1. Since Chen does not disclose the elements (a) and (b) of claim 1, Chen cannot anticipate Claim 2.

Claim 3 depends from claim 1. Since Chen does not disclose the elements (a) and (b) of claim 1, Chen cannot anticipate claim 3. Furthermore, Chen does not disclose (c) providing to the user a link to the monitor. The Examiner contends that Fig. 12a of Chen depicts several links to monitor in window. Applicant respectfully disagrees. Fig. 12a only shows that playback 234 is initiated from the "File" 232 menu of the main window of the performance tool user interface 230. The "File" menu contains these other entries: SaveAll Changes, Begin Network Logging, End Network Logging, Exit xmperf. These menu entries are not links to a monitor. Furthermore, in Chen, a monitor is just a window to display data received from the Data Supplier daemon over the network, as discussed above.

Claim 4 depends from claim 1. Since Chen does not disclose the elements (a) and (b) of claim 1, Chen cannot anticipate claim 4. Furthermore, Chen does not disclose, when there are more than one specified resources, the specified resources being of the same type, creating a set of first objects corresponding to the specified resources, the first objects representing states of

the specified resources and being maintained by the monitor. Column 13, line 1, cited by the Examiner, only discloses that recording statistics can be initiated for one or more instruments in a console or for all instruments in a console. Table 5 (Chen, col. 17), cited by the Examiner, only shows the structure of a data value record that is written to a recording file whenever a set of data values is received for an instrument that is currently recording (Chen, col. 17, lines 12-14). Data value records are simply one of the five types of records in a recording file (Chen, col. 14, lines 37-44). Recording the data being displayed on a console or one or more instruments within a console into a recording file is not the same as creating a set of first objects corresponding to the specified resources, the first objects representing states of the specified resources and being maintained by the monitor.

Claim 5 depends from claim 4. Since Chen does not disclose the elements of claim 4, Chen cannot anticipate claim 5. Furthermore, Chen does not disclose updating the set of first objects upon receiving a notification of a change to at least one of the specified resources, using the monitor. Chen does not disclose any first objects corresponding to the specified resources and being maintained by the monitor. Therefore, Chen cannot disclose the monitor updating the set of first objects upon receiving a notification of a change. Column 17, line 12, cited by the Examiner, only disclose that, whenever a set of data values is received for an instrument that is currently recording, a record as shown in Table 5 is written to the recording file100. The record being written to the recording file may include a value change, but merely recording a value change into the recording file is not the same as updating any set of objects corresponding to the specified resources and being maintained by the monitor. Depending on the type of notification of change and the type of object having the change, updating the set of objects requires different actions from the monitor (Specification, page 15, lines 1 through page 16, line 22; Fig. 4C and 4D).

Claim 6 depends from claim 5. Since Chen does not disclose the elements of claim 5, Chen cannot anticipate claim 6. Furthermore, Chen does not disclose (g) creating a new object representing a current state of the specified resource having the change; and (h) comparing the new object to the corresponding first object representing a previous state of the specified resource to determine the change. As discussed above, Chen merely discloses that, whenever a

set of data values is received for an instrument that is currently recording, a record as shown in Table 5 is written to the recording file100. The record being written to the recording file may include a value change, but merely recording a value change into the recording file is not the same as creating a new object representing a current state of the specified resource having the change; and comparing the new object to the corresponding first object representing a previous state of the specified resource to determine the change.

Claim 7 depends from claim 1. Since Chen does not disclose the elements of claim 1, Chen cannot anticipate claim 7. Furthermore, Chen does not disclose, when, in operation (a), there are more than one specified resources, the specified resources being of different types, and, in operation (b), there are more than one monitors created corresponding to the different types of specified resources, (d) creating different sets of first objects corresponding to the different types of specified resources, each of the different sets of first objects representing states of a corresponding type of specified resources and being maintained by a corresponding monitor. Column 7, line 59, cited by the Examiner, merely discloses that the configuration subsystem 30 has several important functions in the performance tool: a graphical user interface 80, a configuration file 110, a network send/receive interface 70, and a data display subsystem 40. There is nothing in this cited portion of Chen that suggests a creation of an object. Applicant fails to see how this cited portion of Chen anticipates element (d) of Claim 7.

Claim 8 depends from claim 7. Since Chen does not disclose the elements of claim 7, Chen cannot anticipate claim 8. Furthermore, Chen does not disclose (e) providing to the user a link to each of the monitors. As discussed above (Claim 3), Fig. 12a only shows a "File" menu with several entries, not links to a monitor. Furthermore, in Chen, a monitor is just a window to display data received from the Data Supplier daemon over the network, as discussed above. Col. 7, line 65, cited by the Examiner only discloses that the user can design the monitoring devices to use, can instantiate skeleton consoles, can activate and close consoles, and can traverse the hierarchy of performance data available from the any of the data supplier daemons in the network. Designing a monitoring device simply means completely specify the appearance and contents of a graphical performance "console" (Chen, col. 8, lines 6-8).

Claim 9 depends from claim 1. Since Chen does not disclose the elements of claim 1, Chen cannot anticipate claim 9. Furthermore, Chen does not disclose that the monitor is implemented as one of a COM object, a thread, and a process. Column 7, line 12, cited by the Examiner, only discloses that "to activate a skeleton console, the user must specify one or more instances of the available performance data, such as the processes, the remote host systems, or the physical disks to monitor." This only discloses the various types of resources to monitor. This does not disclose that the monitor is implemented as one of a COM object, a thread, and a process.

Claim 10 depends from claim 1. Since Chen does not disclose the elements of claim 1, Chen cannot anticipate claim 10. Furthermore, Chen does not disclose that the monitor request module is initiated by a resource monitor service. Figure 9, reference 180, cited by the Examiner merely discloses that a determination is made on whether the recording submenu (function call) is arrived at from a "Start Instrument Recording" menu (Chen, col. 14, lines 12-14). This does not disclose that the monitor request module is initiated by a resource monitor service. Furthermore, a recording function started by a function call is not the same as a module automatically started by a service upon reboot of the computer system. The monitor request module may be automatically started by the Resource Monitor Service 202 upon reboot of the computer system that includes the Resource Monitor system 200 (Specification, page 11, lines 14-17; Fig. 2).

Claim 11 depends from claim 10. Since Chen does not disclose the elements of claim 10, Chen cannot anticipate claim 11. Furthermore, Chen does not disclose that, after being initiated, the monitor request module restarts all restartable monitors. Fig. 9, reference 172, cited by the Examiner, merely discloses that a determination is made on whether the recording submenu (function call) is arrived at from a "Start Console Recording" menu (Chen, col. 14, lines 1-2). This does not disclose that the monitor request module restarts all restartable monitors. Furthermore, Chen does not disclose a restartable monitor. In contract, in Applicant's invention, a user can designate a monitor as restartable monitor by setting a monitor property called AutoRestart. Necessary information of a restartable monitor is saved so that it can be restarted upon start-up of the Resource Monitor Service 202. (Specification, page 11, lines 22-25).

The above arguments presented for Claims 1-11 are also applicable to Claims 13-23, and 25-35.

To anticipate a claim, the reference must teach every element of the claim. "A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." Vergegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987). "The identical invention must be shown in as complete detail as is contained in the...claim." Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ 2d 1913, 1920 (Fed. Cir. 1989). Since the Examiner failed to show that Chen teaches or discloses any one of the above elements, the rejection under 35 U.S.C. §102 is improper.

Therefore, Applicant believes that independent claims 1, 13, and 25 and their respective dependent claims are distinguishable over the cited prior art reference. Accordingly, Applicant respectfully requests the rejection under 35 U.S.C. §102(b) be withdrawn.
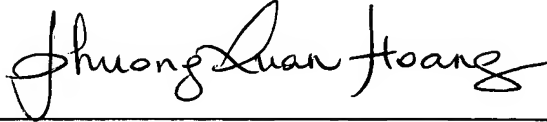
Conclusion

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

UNISYS CORPORATION

Dated: August 23, 2007   By_____

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